

Rebirth: An Exploration of Circular Fashion

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The Boller Review: Vol. 7. 2022-23

INTRODUCTION

Today, the textile industry produces over 92 million tons of waste that is either sent directly to the landfill or incinerated within the year. By the year 2030, this number is expected to increase by nearly 60%, with the fashion industry producing over 148 million tons of textile waste each year. This equates to a garbage truck full of waste sent to a landfill every second (Kim et al., 2021). Textile waste, in combination with carbon emission and water pollution as a result of microplastic output, situates the fashion industry as the second-most polluting industry globally, just behind oil and gas. The numbers are staggering, and they are consistently advertised in an attempt to turn consumers towards more sustainable practices. However, despite the number of green initiatives created by fast fashion giants, there has been little to no progress towards reducing post-production textile waste. The main problem at hand is the varying definitions of sustainability and a lack of understanding about how to slow the rapidly increasing progress of global pollution.

The general public knows the term sustainability. They understand it to be a word that provokes change. However, it is so oversaturated for the sake of lucrative marketing that it has become too vague to have a significant effect on the health of our environment. Creating green initiatives and integrating sustainability goals into the fashion agenda of large fashion companies is now viewed as mandatory, and not for the purpose of improving environmental health, but rather because consumers prefer to buy from companies that incorporate sustainability into their branding. In order to progress towards a more nurturing system, the industry needs to move beyond sustainability initiatives and instead incorporate processes that promote circularity. The fashion industry has failed to adjust the linear system into one that encourages environmentally friendly processes at point of idea conception rather than an afterthought. A circular economy of design in the fashion industry is a crucial topic that will be thoroughly explored in the following text and a theme that continues into design ideation and application.

RESEARCH PROCESS

Closed Loop Recycling

The concept of closed loop recycling refers to the creation of a system that designs products with eternal lifecycles and can ideally be infinitely recycled to eliminate the very concept of waste (Kent, 2022). One of the earliest references to this new way of thinking is in the highly accredited publication *Cradle to Cradle* by William McDonough and Michael Braungart

in 2002. The concept was first established by the coauthors in the 1990s as a design thinking approach that rephrases the problem of eco-efficiency into the idea of eco-effectiveness, where the concept of waste involved in products, packaging, and systems is eliminated before the point of conception. McDonough and Braungart point out that the products of the time were not designed for further use after they had served their initial purpose. Many products today also have this same built-in obsolescence. They refer to this linear cycle as Cradle to Grave, where the products go directly to landfills or are incinerated after the consumer determines the end of its timeline. The authors even go one step further to say that the earth will eventually become the grave itself. The root of the problem, according to Cradle to Cradle thinking, is that even the most cutting-edge environmental approaches today come from the belief that human processes are unavoidably destructive towards the environment, and rather than re-examining our relationship with nature, we create systems that attempt to lessen our effects. However, simply reducing and minimizing our negative impacts will never be enough. We cannot just sustain our current environmental state after decades of destruction imposed by human industrial processes. The authors argue that we need to learn to imitate nature's pre-existing methods of nutrient flow and metabolism that give back and provide additional benefits. The Cradle to Cradle paradigm articulates that "waste equals food," and we can provide nutrients for our planet in the same way as it does for us by designing products, packaging, and systems, where everything is created for a circular economy (Braungart and McDonough, 2002).

Toward the end of the book, the authors reference some projects they have worked on and some brand initiatives that fit the criteria of the Cradle to Cradle design. Although the theology has applications beyond the fashion industry, a deep dive into Nike's sustainability initiatives shows how the brand can be set as a precedent for other companies on the market and for the future development of closed loop recycling. At the time the book was written, Nike was considered a leader in sustainable change and one of the first to set initiatives in place to promote closed-loop recycling. They created an agenda for introducing sustainable processes such as exploring the possibility of tanning leather without harmful chemicals, testing rubber compounds that would act as a biological nutrient, and reusing post-production goods by separating and grinding the uppers, outsole, and midsole to create surfaces for various sporting activities. Today, Nike has implemented many of these processes at full scale through the Nike Move to Zero Initiative. The comprehensive sustainability initiative outlines the company's ambitious goals to reduce its carbon footprint, pollution across its supply chain, and waste produced. Focusing specifically on waste as it pertains to the Cradle to Cradle concept, today Nike follows a hierarchy of recycling that determines how each post-consumer good could be the

most effectively and efficiently reused. When speaking with Cameron Hawkins, a Zero Waste and Circularity Manager at Nike, she described the process and the importance of eliminating harmful waste disposal practices in their supply chain. After products are sold, the customer returns, deadstock, damages, and excess inventory are sorted first by whether they could be resold into the marketplace at discounted or full prices. If they do not meet these standards, the goods are donated or deconstructed to be recycled (Hawkins, 2023). The Nike process to recycle items is known as Nike Grind, which was in the works during the time *Cradle to Cradle* was first published. The program has been extremely successful in creating products of equal value rather than recycling using harmful additives and chemicals that downcycle the good or making it a less effective sustainability process than incineration. At the last resort, if the waste cannot be reused or ground, the goods are burned in-house to be used as an energy source for Nike factories and offices. Ultimately, the system creates a completely waste free supply chain which could be applied to other businesses looking to improve their closed loop recycling processes. Overall, Nike remains a leader in sustainability in the fashion industry, a victory Cameron Hawkins accredits to integrating closed loop recycling into the business model and product development stages rather than as a separate function of the company. In order for other brands to improve upon their own practices, they need to implement similar operations where the elimination of waste is not an afterthought, but rather an element of development where the waste is designed out of the products from the start.

Similarly, other brands in the industry have been successful in implementing sustainable practices and eliminating waste from their business models. However, the most accredited are those that built their brands with a value-centered approach that placed sustainability at the core of their company persona.

Emily Bode began her luxury menswear brand, Bode, in 2016, which has gained recognition for its unique approach to design and commitment to sustainability. The brand eliminates waste in fashion by utilizing deadstock and antique fabrics in its designs, which are often sourced from textile mills, vintage stores, and antique dealers. By repurposing these fabrics, Bode reduces the amount of new materials produced and gives new life to previously discarded textiles. In addition to utilizing deadstock and antique fabrics, Bode's production process is designed to reduce waste. Each garment is made in small quantities, and each piece is created with attention to detail, taking up to a week to produce. This slow and deliberate process ensures that each garment is unique and of high quality, reducing the need for frequent replacements (Wray, 2019). The brand is a significant driving force in the industry, especially for

luxury fashion, as it shows the plausibility of building a successful and profitable brand with small production runs that do not exploit workers or add to the ever-increasing waste crisis.

A smaller yet impactful brand that has shown a strong dedication towards feeding a circular economy is the Hong Kong-based brand started in 2018, The R Collective. The brand sources pre-consumer waste materials, such as surplus fabrics and deadstock from luxury fashion houses, and transforms them into new garments, reducing the amount of waste that goes directly to a landfill immediately following production. The brand also promotes circularity by offering a garment take-back program where customers can return their gently used R Collective garments, which are then either resold or recycled into new clothing. This program helps to extend the lifespan of garments and further reduces the amount of waste the company contributes to the environment (The R Collective, 2023). I chose to dive deeper into this brand specifically because it is a great representation of how traditionally smaller retailers, that rely on short seasons and fast fashion to make a profit, can make changes towards more sustainable operations without sacrificing the loyalty of their customers. If anything, an introduction to circular fashion can attract even more customers that are shifting mindsets and becoming more educated on unethical supply chain practices.

Lastly, I wanted to dive into a business that has not been known for sustainable practices in the past but has made significant changes to improve its business model and implement initiatives that support the circular economy. Coach is an American fashion brand founded in 1941 and known for its high-quality leather goods. Until recently, the brand has been known to produce a significant amount of waste and participate in bag slashing, which is the act of destroying excess goods that could not be sold to preserve their exclusivity. However, in recent years, the brand has revitalized its sustainability initiatives by creating a take-back and resell program to promote circular fashion. As of April 2023, the brand has announced the launch of its new sub-brand, Coachtopia, which primarily uses the brand's scrap leather and excess materials to create modern designs for the eco-conscious yet trend-driven consumer. The business concept is meant to utilize waste and recycled materials from existing Coach factories to begin, but eventually, the brand will use materials from older Coachtopia products that can be returned by the customer for credit (Paton, 2023). Ultimately, Coach is modeling the Cradle to Cradle concept with its new sub-brand and will hopefully be one of the first luxury brands to create an entirely closed-loop business.

Trend Research

Approaching market and trend research in preparation for my collection, I referenced the forecasts of WGSN and the Key ideas of fashion for the Spring/Summer season of 2024. I supplemented my research with inspiration from the works of modern designers and looks from notable archival collections.

In terms of key trends for the season, as identified by WGSN in the Big Ideas of 2024 report, I connected with three of the six themes that I will use to direct my creative design process. The trend forecast describes the next few years as a transition period for the fashion industry, in which there will be consumers with focus on community, interdependence, and the rejection of mainstream society (Hall, 2022). The first of the six categories is labeled “Care-Taking.” The concept focuses on how consumers are predicted to shift away from the competitive and stressful retail environments and rather prioritize their well-being and livelihood over their work lives. I think this is a crucial element that emerging designers are gearing toward in the upcoming seasons. The attention to consumer needs is becoming more relevant than ever before, and the fashion industry will adapt to these changes by focusing on their desire for nourishment and balance. The report also mentions the topic of “Provoking Protopias” as one of the key concepts for 2024. The term “protopia” was coined by Kevin Kelly and defined by WGSN as a practice with more pragmatic aspirations inspired by utopian societies. It highlights nature at the root of all design and predicts that “aesthetics will take a backseat to ecosystems, as designers focus on products and services that preserve the planet for all species” (Hall, 2022). The idea encompasses circular communities and balancing new-age technology with Traditional Ecological Knowledge (TEK) design. I will personally attempt to emulate the protopia concept by connecting value-centered design with circularity in the fashion industry that will intrigue the modern and eco-inspired consumer. Among the other Big Ideas mentioned in WGSN’s report, my interest was piqued by how the concept of People Power Shifts relates to the fashion industry. The idea describes how, as the consumer base finds unity in diversity and prioritizes community, we will move towards a time of democratized design, in which people-powered initiatives are to be embedded in the product development stages. Ultimately, the new consumer directions lead to more value-driven marketplaces that will establish a precedent for all future fashion innovations and propose and complete shift to new-age sustainable economies.

Continuing down through the WGSN trend flow, the Big Ideas featured in the 2024 forecast evolve over the course of the STEPTIC methodology, which represents changes in society, technology, environment, politics, industry, and creativity. The model provides a system

for forecasting trends based on key elements that branch off into larger trend drivers and eventually trickle down into the Autumn/Winter season and how it will transition to the Spring/Summer season. For 2024, the three pillars of the Spring/Summer forecasts are Protect & Connect, SenseScapes, and Creative Confidence. After reading each report, I narrowed into themes involved in the Protect & Connect report and will relate several of these key ideas to the development of my own collection (Maggioni, 2022; Yiannakou, 2022). The forecast for the theme points out the ever-changing consumer and the current shift in the industry where consumers will focus more on the quality of the products to make more educated and value-centered purchases. They will desire beneficial experiences that will provide for them and support a nourished and grounded lifestyle, unlike current environments that house competition and excessive propaganda. The Protect & Connect report is further divided into subcategories that relate to specific themes. Of the ten listed, I chose to concentrate on the theme titled “Emotional Minimalism” and how I can utilize the narrowed details in my own work. The concept describes the recent digital overload that has forced consumers to retreat to their personal spaces and crave a nurturing environment. There will be more expectations of comfort and versatility coming out of our pandemic period, but consumers are also ready to ditch their casual at-home wear and re-enter the market for embracing creativity, this time with a more breathable and minimalist touch. The of Emotional Minimalism is derived from the Soulful Minimalism seen in the forecast for Autumn/Winter 23/24, maintaining the deep-rooted focus and provoking a greater emphasis on internal and external tranquility. Another element of the theme is the continued attention to circularity in the supply chain. Emotional Minimalism takes the broad idea and translates it to design details and how sustainability can be seamlessly incorporated into modern design. Mono-materiality, for instance, combines simplicity and minimalism with fabric manipulation to create diversity in a collection yet maintain the overall minimalist aesthetic. The use of fewer fabrics further promotes circularity as it will create an easier end-of-life recycling process. Timeless trims and fastenings also fit the theme while extending the life of the product by opting for classics over fast fashion details.

The entirety of the design focus is meant to seamlessly integrate into a circular economy. I wanted to translate my previous research on sustainable fashion, Cradle to Cradle design, and trend drivers for Spring/Summer 2024 into my deliverable and showcase a comprehensive understanding of circularity in fashion. As a continuation of these themes, I took closed loop recycling into consideration during every step of my design process including fabric sourcing, product development, and application.

CREATIVE PROCESS

The creative process is a translation of my research on closed loop recycling and my application of the key trend drivers for Spring/Summer 2024. I wanted to demonstrate how the Cradle to Cradle model and the idea of designing garments to be seamlessly integrated into a circular economy is feasible for small designers such as myself, and eventually, these processes can be scaled for larger businesses to improve their sustainable practices. I ultimately decided to create a skirt made entirely from postproduction scrap fabric and secondhand materials that apply design details that comply with guidelines for closed loop recycling.

Customer Profile

I began by developing a customer profile that identifies the desired target market of the product and figurative brand that would sell the garment. During my market research, I used various case studies on consumer reactions to circular fashion, as well as a Mintel report on The Circular Economy. Together, the sources provided a comprehensive insight into customer demographics and psychographics as well as the behaviors associated with different generations in reaction to the sustainable market. A primary topic of conversation is how younger generations, specifically Millennials and Gen Z, are more likely to prioritize sustainability and look to educate themselves before making a purchase. According to a study from 2021 titled *Consumer's Value and Risk Perceptions of Circular Fashion*, the majority of consumers are willing to pay a premium for brands that are more eco-oriented, whereas over 50% of Gen Z and Millennials stated they would pay up to 10% more for sustainable goods (Kim et al., 2021). Therefore, I decided to position my target consumers in ages ranging from 21 to 30 years. They would also likely live in a larger urban area where they are involved in environmental and social activism. The range of customers the product attracts would be diverse in terms of gender, ethnicity, and socioeconomic class. However, they might also be budget-conscious, leading them to participate in the secondhand clothing market, but are also willing to pay a premium for new goods from sustainable brands. Lastly, the individual is likely a student or a young professional with an entrepreneurial or creative mindset in the workplace. Their high propensity for risk further encourages them to try new things and explore new brands, often making them early adopters of new sustainable companies and out of the box trends.

Color Palette

I proceeded to create a color palette derived from the Global Color Forecast by WGSN for the year 2024 as well as forecasts specific to the Spring and Summer seasons (Clark, 2022). The color reflects many of the key trends previously mentioned in my research that are rooted in a realignment and reconnection with nature. I wanted to also explore palettes that invoke the same sense of calm reflected in the care-taking mindset that trickles into the theme of emotional minimalism. This theme, in particular, was a driving force in determining the color palette as it focuses on how to translate trends to products designed specifically for the circular economy. Monomateriality as well as monotone or neutral color palettes play a role in regenerative design and extend the lifeline of goods and avoid the use of overly trendy colors made with harmful synthetic dyes. Ultimately, I curated a palette with three foundational midtones that will be highly functional in closed loop recycling processes and a green tone from the seasonal Pantone palette that I believed represented the identified trends.

Concept Board

Over the last four years, I have been able to freely experiment with different concepts and design layouts for inspiration boards, and recently I have enjoyed putting together deliberately curated images to invoke the feeling of whatever I am portraying. In the case of my comprehensive thesis that showcases what I have learned over the course of my education and how I have evolved my personal sense of creativity, I wanted to demonstrate this self-evolution by developing a concept that represented the trends I researched, the color palette I created, the circular economy I expanded on, but also the sense of self I have developed. I layered images showcasing the natural draping of lightweight fabrics and design details such as the sheer and feminine fabric at the focal point. But most importantly, the intention of the board was to invoke the same sense of tranquility and connectedness as described in the trend forecasts of the season.

Sourcing Fabric

Sourcing the materials to use in the development of my final deliverable was a crucial step in connecting my research on the circular economy to the creative process. When I initiated the search for possible resources, I outlined my options as deadstock fabric leftover from production on large clothing runs, sustainably made fabrics created to be used for closed loop recycling, or repurposed fabrics from donation and thrift stores. After considering price, fabric content, and accessibility, I decided to explore resources for purchasing production scraps to be

used in apparel design. I identified various online marketplaces for purchasing deadstock fabrics including Nona Source, Marcy Tilton, and Queen of Raw. Each of these websites is a hub for businesses to purchase luxury deadstock fabric, however, many of them had minimum yardage quantities that exceeded my budget and therefore do not appeal to students or small independent designers. Fortunately, during my time in New York City over the winter, I had the opportunity to visit a deadstock warehouse in Brooklyn run by the company Fab Scrap. Fab Scrap collects and resells high-quality fabric leftover from fashion and textile companies' production runs with a mission to create a closed loop system for textile waste and make it easily accessible to designers, makers, and other creatives. When browsing the warehouse, I considered the themes portrayed in the Protect and Connect WGSN forecast and the color palette I developed prior to my visit. In the end, I purchased around four yards of a striped fashion fabric composed of natural fibers and exposed loose threads to create the pattern. I also sourced approximately two yards of a neutral Tencel fabric for the skirt lining, two invisible zippers, fusible interfacing, and a spool of ribbon to construct the garment. Therefore, I was successful in creating a deliverable made entirely from second hand and postproduction materials that demonstrates an application of closed loop recycling.

Design Process

The design process consisted of ideation through pattern making and construction which resulted in the finished skirt to demonstrating the concepts of closed loop recycling in fashion. I began by experimenting with different silhouettes, draping techniques, and design details, sketching various iterations of my ideas over the course of three weeks. After solidifying the design, along with a collection of other garments I hope to add to the line in the future, I began drafting a basic skirt pattern based on my own measurements. I then transferred the pattern to muslin and assembled the skirt to analyze the fit and identify the changes I would make to the pattern. After repeating this process several times, I finalized the basic skirt pattern and proceeded to create another pattern specific to my design. I altered the waistline so that the skirt would sit lower on the hips and made a duplicate pattern that I extended with a slight A-line for the sheer outer skirt. Finally, I cut and sewed the pattern using a neutral beige Tencel fabric for the underskirt and the sheer striped fabric for the over skirt. The final garment features an invisible zipper in the center back, a facing at the waistline for a minimalistic design, and a slit in the center back for functional ease. Overall, the garment is a demonstration of the concepts explored during my research on the circular economy and translates the trends and sustainable drivers to modern design.

CONCLUSION

The research above has explored the concept of circularity in the fashion industry and how it is crucial for brands to acknowledge their negative environmental impact and prioritize ethical practices in their supply chain. By evolving the concept of the Circular Economy and emulating the Cradle to Cradle model, the idea of eliminating the concept of waste can become a reality in the fashion industry. Designing for closed loop recycling and using pre-existing products that would have otherwise been sent to a landfill or incinerated, thus exuding toxic chemicals, they can instead be reused to make consumer goods that will be infinitely recycled through the supply chain. After developing a garment made from postproduction scraps and examining how to incorporate closed loop recycling at each step, I have shown that the implementation of sustainable practices is not only possible but can also be done economically and efficiently, which are two of the primary concerns in adhering to sustainable standards. Overall, a circular economy is a comprehensive solution to excessive waste production in the fashion industry and a step the industry needs to take to head towards a future without waste.

REFERENCES

- Braungart, M., & McDonough, W. (2002). *Cradle to cradle: Remaking the way we make things*. Vintage.
- Clark, J. (2022, March 31). Global Colour Forecast S/S 24. WGSN. <https://www.wgsn.com/fashion/article/93305>
- Good On You. (n.d.). Greenwashing Examples. <https://goodonyou.eco/greenwashing-examples/>
- Hall, L. (2022, January 25). Big Ideas 2024: Fashion. WGSN. <https://www.wgsn.com/fashion/article/92520>
- Hawkins, C. (2023, February 24). Nike Zero Waste and Circularity. personal.
- Kent, S. (2022, May 31). *Widespread inaction on sustainability eclipses progress at fashion's biggest companies*. The Business of Fashion. Retrieved May 7, 2023, from <https://www.businessoffashion.com/articles/sustainability/widespread-inaction-on-sustainability-eclipses-progress-at-fashions-biggest-companies/>
- Kim, I., Jung, H. J., & Lee, Y. (2021). Consumers' value and risk perceptions of circular fashion: Comparison between secondhand, upcycled, and recycled clothing. *Sustainability*, 13(3), 1208. <https://doi.org/10.3390/su13031208>
- Yiannakou, L. (2022, August 18). Womenswear Forecast S/S 24: Protect & Connect. WGSN. <https://www.wgsn.com/fashion/article/62dedaba0bb01fe83111bbbf>
- Paton, E. (2023, April 20). *Can coach get shoppers to buy bags made from waste scraps?* The New York Times. Retrieved May 4, 2023, from <https://www.nytimes.com/2023/04/20/fashion/coach-coachtopia-sustainable-fashion.html>
- R Collective. (n.d.). R-Circular Textiles. <https://thercollective.com/pages/r-circular-textiles>
- Wray, A. (2019, May 10). *Bode is scaling through storytelling*. Vogue Business. Retrieved May 7, 2023, from <https://www.voguebusiness.com/fashion/bode-scaling-collections-through-storytelling>

APPENDIX

Additional References

- Barnes, O., Collins, J., Paget, N., & Rechner, E. (2022, February 7). Sustainability & Innovation: Upcycling & Deadstock Strategies. WGSN.
<https://www.wgsn.com/fashion/article/92646>
- Bloomberg. (2022, February 3). The State of Fashion 2022: BoF-McKinsey. Business of Fashion. <https://www.businessoffashion.com/articles/sustainability/the-state-of-fashion-2022-bof-mckinsey-circular-textiles-recycling-closed-loop-environment/>
- Business of Fashion. (2022, March 10). Widespread inaction on sustainability eclipses progress at fashion's biggest companies.
<https://www.businessoffashion.com/articles/sustainability/widespread-inaction-on-sustainability-eclipses-progress-at-fashions-biggest-companies/>
- Business of Fashion. (2022, April 20). Sustainability: Climate Change, Supply Chain, Human Rights, Regenerative Agriculture, Nature Risk.
<https://www.businessoffashion.com/articles/sustainability/sustainability-climate-change-supply-chain-human-rights-regenerative-agriculture-nature-risk/>
- Center for EcoTechnology. (n.d.). Fast Fashion Textile Waste.
<https://www.centerforecotechnology.org/fast-fashion-textile-waste/#>
- Good On You. (n.d.). Greenwashing Examples.
<https://goodonyou.eco/greenwashingexamples/>
- Hall, L. (2022, September 23). Cost of Living: Design Priorities 2022. WGSN.
<https://www.wgsn.com/fashion/article/93501>
- Hawkins, C. (2023, February 24). Nike Zero Waste and Circularity. personal. d recycled clothing. *Sustainability*, 13(3), 1208. <https://doi.org/10.3390/su13031208>
- Maggioni, S. (2022, October 18) Womenswear Forecast S/S 24: Creative Confidence. WGSN
<https://www.wgsn.com/fashion/article/62deda80c2d09a2d76d2ea6f>
- Maggioni S. (2022, October 18) Womenswear Forecast S/S 24: SenseScapes. WGSN
<https://www.wgsn.com/fashion/article/62d668672dbcfed4840eacf3>
- Maggioni S. (2022, October 18) Womenswear Forecast S/S 24: Protect & Connect. WGSN
<https://www.wgsn.com/fashion/article/62dedabaobb01fe83111bbbf>
- Maggioni, S. (2022, August 18). Womenswear Forecast S/S 24: Creative Confidence. WGSN.
<https://www.wgsn.com/fashion/article/62deda80c2d09a2d76d2ea6f>
- Maggioni, S. (2022, August 18). Womenswear Forecast S/S 24: SenseScapes. WGSN.
<https://www.wgsn.com/fashion/article/62dedabaobb01fe83111bbbf>
- Marshall, A. (2021, February 15). The Circularity of Fashion: A Review of Literature. *Sustainability*, 13(3), 1208. <https://www.mdpi.com/2071-1050/13/3/1208>
- Mintel. (2022, January). Circular Fashion - UK.
<https://reports.mintel.com/display/1072215/?fromSearch=%3Ffreetext%3Dcircular%2520ofashion%26resultPosition%3D8&highlight#hit1>
- Mintel. (2020, May). Second-hand Fashion and the Circular Economy - UK.
https://reports.mintel.com/display/969984/?fromSearch=%3Ffilters.category%3D125%26last_filter%3Dcategory%26resultPosition%3D21
- Palmer, H. (2022, December 5). Webinar: Making Fashion Circular. WGSN.
<https://www.wgsn.com/fashion/article/637d8fd8db6ac2ee7a64e566>

- Palmer, H., & Ajimal, N. (2022, July 12). Women's Textiles Forecast S/S 24: Protect & Connect. WGSN. <https://www.wgsn.com/fashion/article/93935>
- Pirg California. (n.d.). The Fashion Industry: Waste is Drastically Contributing to Climate Change. <https://pirg.org/california/articles/the-fashion-industry-waste-is-drastically-contributing-to-climate-change/>
- Stella McCartney. (n.d.). Sustainability. <https://www.stellamccartney.com/us/en/sustainability/sustainability.html>
- Tan, E. (2023, January 17). Gen Z: Fashion Recommerce Profiles 2023. WGSN. <https://www.wgsn.com/insight/article/63bed0214b03c45dbc18d058>
- The United Nations. (2019, March 11). UN Alliance launched to tackle global waste menace. <https://news.un.org/en/story/2019/03/1035161>
- Vogue. (2023, April 14). Ralph Lauren Spring 2003 Ready-to-Wear Collection. <https://www.vogue.com/fashion-shows/spring-2003-ready-to-wear/ralph-lauren/slideshow/collection?redirectURL=https://www.vogue.com/fashion-shows/spring-2003-ready-to-wear/ralph-lauren/slideshow/collection#1>